

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1           1.       (Original) A method for use in communications involving a first terminal that is  
2 coupled to one side of a firewall and network address translator, the method comprising:  
3               sending, by the first terminal, a message identifying the first terminal to a node on  
4 another side of the firewall and network address translator;  
5               receiving, by the first terminal, another message from the node, wherein the  
6 messages between the first terminal and the node causes creation of a path through the firewall  
7 and network address translator; and  
8               repeatedly sending keep-alive messages to maintain the path through the firewall  
9 and network address translator.

1           2.       (Original) The method of claim 1, further comprising receiving a call request, by  
2 the first terminal, from the node over the path maintained through the firewall and network  
3 address translator.

1           3.       (Original) The method of claim 1, wherein repeatedly sending the keep-alive  
2 messages is based on a timer in the first terminal.

1           4.       (Original) The method of claim 1, wherein sending the identifying message  
2 comprises sending a registration message to register the first terminal with the node.

1           5.       (Original) The method of claim 4, wherein sending the registration message  
2 comprises sending a Session Initiation Protocol REGISTER message.

1           6.       (Original) The method of claim 5, wherein sending the registration message  
2 comprises sending the registration message to a Session Initiation Protocol proxy, the node  
3 comprising the Session Initiation Protocol proxy.

1           7.       (Original) The method of claim 1, further comprising exchanging messages, by  
2 the first terminal, with the node over the path maintained through the firewall and network  
3 address translator to establish a call session.

1           8.       (Currently Amended) A system for use in communications between a first  
2 terminal and a second terminal, the first terminal coupled ~~to a remote~~ behind a first network  
3 address translator, the system comprising:  
4               a storage module to store network address translation information for the first  
5 terminal; and  
6               a controller adapted to partially create the network address translation information  
7 during setup of a communications session between the first and second terminals, to insert a  
8 predetermined indication into the network address translation information to indicate that the  
9 network address translation information has not been completed, and to wait for a media packet  
10 originated by the first terminal after the communications session has been set up to complete the  
11 network address translation information.

1           9.       (Original) The system of claim 8, wherein the media packet contains a source  
2 address, the source address comprising a public address that is allocated to the first terminal by  
3 the remote network address translator.

1           10.      (Original) The system of claim 9, wherein the public address of the first terminal  
2 is unknown to the controller until after the media packet has been received.

1           11.      (Original) The system of claim 10, wherein the controller is adapted to further  
2 exchange control packets with a device containing the remote network address translator to set  
3 up the communications session between the first and second terminals.

1           12.      (Original) The system of claim 11, wherein at least one of the control packets  
2 from the device contains an identifier to identify a private address of the first terminal that is to  
3 be used for communications of media packets.

1           13.    (Original) The system of claim 12, wherein the controller is adapted to ignore the  
2 private address of the first terminal for communicating media packets between the first and  
3 second terminals.

1           14.    (Original) The system of claim 11, wherein the control packets comprise Session  
2 Initiation Protocol control packets.

1           15.    (Currently Amended) The system of claim 14, wherein the media packet ~~contain~~  
2 contains Real-Time Protocol data.

1           16.    (Original) The system of claim 14, wherein the media packet contains at least one  
2 of the following types of data: file transfer data, interactive electronic gaming data, and  
3 whiteboarding data.

1           17.    (Original) The system of claim 8, wherein the network address translation  
2 information comprises information to map a network address of the first terminal to an alias  
3 address of the first terminal.

1           18.    (Original) The system of claim 17, wherein the network address translation  
2 information further comprises information to map a network address of the second terminal to an  
3 alias address of the second terminal.

1           19.    (Original) The system of claim 17, wherein the controller is adapted to transmit  
2 media packets originated by the first terminal to the second terminal, each media packet  
3 containing the first terminal alias address as a source address.

1           20.    (Original) The system of claim 8, wherein the controller comprises plural  
2 modules, the plural modules comprising a first module adapted to exchange call control signaling  
3 and a second module adapted to exchange media packets between the first and second terminals.

1           21.   (Currently Amended) An article comprising at least one storage medium  
2 containing instructions for establishing communications between a first terminal and a second  
3 terminal, the instructions when executed causing a system to:  
4               store network address translation information for the first terminal that resides  
5 behind a remote network address translator;  
6               partially create the network address translation information during setup of a  
7 communications session between the first terminal and the second terminal; [[and]]  
8               insert a predetermined indication into the network address translation information  
9 to indicate that the network address translation information has not been completed; and  
10              wait for a media packet originated by the first terminal after the communications  
11 session has been set up to complete the network address translation information.

1           22.   (Currently Amended) ~~The article of claim 21,~~ An article comprising at least one  
2 storage medium containing instructions for establishing communications between a first terminal  
3 and a second terminal, the instructions when executed causing a system to:  
4               store network address translation information for the first terminal that resides  
5 behind a remote network address translator;  
6               partially create the network address translation information during setup of a  
7 communications session between the first terminal and the second terminal; and  
8               wait for a media packet originated by the first terminal after the communications  
9 session has been set up to complete the network address translation information,  
10              wherein the instructions when executed cause the system to store network address  
11 translation information containing fields to map an address of the first terminal to a first alias  
12 address and to map an address of the second terminal to a second alias address.

1           23.   (Original) The article of claim 22, wherein the instructions when executed cause  
2 the system to further:

3                   communicate, through the system, media packets between the first and second  
4 terminals, each media packet containing a source address and a destination address; and  
5                   translate, for each media packet, both the source and destination addresses.

1           24.   (Original) The article of claim 21, wherein the media packet from the first  
2 terminal contains a source address, the source address comprising a public address that is  
3 allocated to the first terminal by the remote network address translator, the public address of the  
4 first terminal being unknown to the system until after the media packet has been received.

1           25.   (Original) A device capable of being used in communications through a firewall  
2 and network address translator, the device comprising:

3                   an interface adapted to exchange messages with a node on another side of the  
4 firewall and network address translator, the exchange of messages with the node to create a path  
5 through the firewall and network address translator; and

6                   a controller adapted to repeatedly send keep-alive messages to maintain the path  
7 through the firewall and network address translator.

1           26.   (Original) The device of claim 25, further comprising a timer to determine timing  
2 of the keep-alive messages.

1           27.   (New) The system of claim 8, wherein the controller is adapted to communicate  
2 media packets between the first and second terminals, each media packet containing a source  
3 address and a destination address, and to translate, for each media packet, both the source and  
4 destination addresses.

1           28.   (New) The system of claim 8, wherein the predetermined indication comprises a  
2 dummy address.

Appln. Serial No. 09/881,594  
Amendment Dated February 3, 2005  
Reply to Office Action Mailed November 5, 2004

1           29.   (New) The article of claim 21, wherein the predetermined indication comprises a  
2   dummy address.